A project report on

**PERSONAL BLOGGING WEBSITE**

Submitted in partial fulfillment of Requirements for the award of Degree in

**DEPARTMENT OF COMPUTER APPLICATIONS**

**Of**

**BENGALURU CITY UNIVERSITY**

**BENGALURU**

**Submitted by**

**Anubhav Lal [ R1920620 ]**

**Nehal Deb [ R1920689 ]**



**ACHARYA INSTITUTE OF GRADUATE STUDIES**

(NAAC Reaccredited ‘A’ Grade and Affiliated to Bengaluru City University)

1#89/90, Soldevanahalli, Hesaraghatta Road, BENGALURU – 560107

**2021 – 2022**

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**UNDER THE GUIDANCE OF**

**Prof. Guide Name**

**Assistant Professor**

**Department of Computer Applications**

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U N D E R T A K I N G

**Anubhav Lal (R1920620)**, **Nehal Deb (R1920689)** studying in 5th Semester BCA at A.I.G.S hereby undertake that the project has been carried out by us as a part of fulfilment of the requirements of the award of the degree as prescribed by Bengaluru City University. The project was carried out at **Acharya Institute of Graduate Studies (A.I.G.S)** under the guidance of **Prof. Guide Name** This project has not formed the basis for the award of any other degree of Bengaluru City University

**Signature of the students**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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C E R T I F I C A T E

This is to certify that the project entitled

**Blogger’s Den**

Submitted in partial fulfilment of the requirement of the degree of

Bachelor of Computer Application is a result of the bonafide work carried out

by

**Anubhav Lal (R1920620)**

**Nehal Deb (R920689)**

During the academic year 2021-2022

**Internal Guid**e **Head of Dept**

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AIGS, Bengaluru-560107 AIGS, Bengaluru-560107

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Dr. Gurunath Rao Vaidya

AIGS, Bengaluru-107 **Examiner 2: \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Acknowledgment**

Life enhances better opportunity with better blessings with adequate space and time. It was a great blessing for doing this Project titled “BLOGGER’S DEN”, where I have put into all my efforts and dedication towards it resulting in getting undiscovered knowledge, better experiences, and ideas behind. To give brighter and broader measures there has been a few concerns supportive to make this project to be real time application, without which my project would have been meaningless.

First, my heartfelt gratitude and respect to **Dr. Gurunath Rao Vaidya,** Principal of AIGS and to **Prof. Ramakrishna C. N,** HOD, Dept. of Computer Applications. With utmost thanks and dedication, I would like to thank my guide **Prof. Guide Name,** where she/he was aside in every step of work that I have done and with some important advices and corrective measures.

I would also like to extend my thanks and gratitude to every faculty of BCA Department and to my family inmates and friends who were concerned for the project.

Thank you everyone.

**Anubhav Lal (R1920620)**

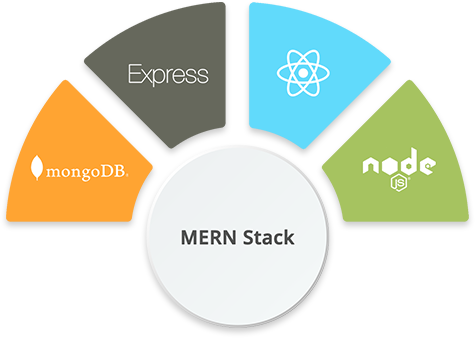
**Nehal Deb (R1920689)**

**ABSTRACT**

Blogs normally consists of a collection of posts. It is a type of website that is like a diary or journal. Blog organizes content in the form of categories and posts. Posts on a blog are presented in reverse chronological order. That means your latest post goes to the top of the page. That way, when you make a new post, it will come first and the first post will go below it. Bloggers (a word for people who write on blogs) often write about their opinions and thoughts. “**Blogger’s Den**” is a web-based project/application for creating personal blogs. The main objective of this project is to build an app where a user can express their own thoughts. It can be updated with new information on an ongoing basis. Blogs may be short, informal, controversial, or more professional. Blogs can be updated consistently and provides the option for readers to comment or ask questions on individual posts. This encourages the readers to engage with the author.

“Blogger’s Den” is a simple and easy to use application with a very clean user interface to ensure the user does not face any difficulty in operating the application.

It is a MERN stack application which means it uses ReactJS with Material-UI (framework) for the front-end styling and for the back-end NodeJS with ExpressJS (framework) is used. The data is stored on a serverless database called MongoDB.

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1. **INTRODUCTION**

**1.1 Project Introduction**

The “Blogger’s Den” is developed to overcome the problems prevailing in the practicing manual system. This application is supported to eliminate and, in some case, reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need of a single user to carry out operations in a smooth and effective manner.

The main challenges to overcome were managing the updated information of Blogs and Images. Every person likes to have different category of blogs which he/she would like to write on.

The application is reduced as much as possible to avoid errors while entering the data. No formal knowledge is needed for the user to use this system. Thus, by this all proves it is user friendly. It assists the user to concentrate on their productivity.

**1.2 Purpose of the project**

The purpose of this project is to create a blog application by the help of computerized equipment and full-fledged computer software, fulfilling their requirements so that their valuable data/information can be stored for a longer period with the easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

The project, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. That means that the user need not be distracted by the information that is not relevant, while being able to reach the information.

**2. LITERATURE SURVEY**

**2.1 EXISTING SYSTEM**

The existing system for online blogs includes traditional methods like just writing texts without images or comments, which are too slow and unpleasant to watch. With the advancement of internet, writing blogs online is very interesting and fun thing to do., which makes the blog writing a common thing now a days. Again, most of these are limited to the have technical skills, the writers are required to have the knowledge of the technologies for putting the logs online in the internet.

**2.1.1 PROPOSED SYSTEM**

Bloggers Den is developed to provide an effective means for the writers to post blogs to their page without any hassle. In addition, Writers can view and update their blogs, title and image at any time. This makes the application user-friendly. Blogger’s Den is web-based application providing flexibility for the users.

**2.2 FEASIBILITY STUDY**

The feasibility of the project is analyzed in this phase and business proposal is put forth with a very general plan for the project and some cost estimates. During system analysis the feasibility study of the proposed system is to be carried out. This is to ensure that the proposed system is not a burden to the company. For feasibility analysis, some understanding of the major requirements for the system is essential. Three key considerations involved in the feasibility analysis are:

**2.2.1 Economic Feasibility**

This study is carried out to check the economic impact will have on the system will have on the organization. The amount of fund that the company can pour into the research and development of the system is limited. The expenditures must be justified. Thus, the developed system was within the budget and this was achieved because most of the technologies used are freely available. Only the customized products have to be purchased.

**2.2.2 Technical Feasibility**

This study is carried out to check the technical feasibility, that is, the technical requirements of the system. Any system developed must not have a high demand on the available technical resources. This will lead to high demands being placed on the client. The developed system must have a modest requirement, as only minimal or null changes for the implementing this system.

**2.2.3 Operational Feasibility**

The aspect of study is to check the level of acceptance of the system by the user. This includes the process of training the user to use the system efficiently. The user must not feel threatened by the system, instead must accept it as a necessity. The level of acceptance by the users solely depends on the methods that are employed to educate the user about the system and to make him familiar with it. His level of confidence must be raised so that he is also able to make some constructive criticism, which is welcomed, as he is the final user of the system.

**2.3 TOOLS AND TECHNOLOGIES**

**MONGODB: [**MongoDB: Cross-platform Document-Oriented Database]

MongoDB is a NoSQL database where each record is a document comprising of key-value pairs that are similar to JSON (JavaScript Object Notation) objects. MongoDB is flexible and allows its users to create schema, databases, tables, etc. Documents that are identifiable by a primary key make up the basic unit of MongoDB. Once MongoDB is installed, users can make use of Mongo shell as well. Mongo shell provides a JavaScript interface through which the users can interact and carry out operations (e.g.: querying, updating records, deleting records).

Why use MongoDB?

Fast – Being a document-oriented database, easy to index documents. Therefore, a faster response.

Scalability – Large data can be handled by dividing it into several machines.

Use of JavaScript – MongoDB uses JavaScript which is the biggest advantage.

Schema Less – Any type of data in a separate document.

Data stored in the form of JSON –

* Objects, Object Members, Arrays, Values, and Strings
* JSON syntax is very easy to use.
* JSON has a wide range of browser compatibility.
* Sharing Data: Data of any size and type (video, audio) can be shared easily.

Simple Environment Setup – It’s really simple to set up MongoDB.

Flexible Document Model – MongoDB supports document-model (tables, schemas, columns & SQL) which is faster and easier.

**Express: Back-End Framework:**

Express is a Node.js framework. Rather than writing the code using Node.js and creating loads of Node modules, Express makes it simpler and easier to write the back-end code. Express helps in designing great web applications and APIs. Express supports many middlewares which makes the code shorter and easier to write.

Why use Express?

* Asynchronous and Single-threaded.
* Efficient, fast & scalable
* Has the biggest community for Node.js
* Express promotes code reusability with its built-in router.
* Robust API
* Create a new folder to start your express project and type below command in the command prompt to initialize a package.json file. Accept the default settings and continue.

**React: Front-End Library**

React is a JavaScript library that is used for building user interfaces. React is used for the development of single-page applications and mobile applications because of its ability to handle rapidly changing data. React allows users to code in JavaScript and create UI components.

Why use React?

* Virtual DOM – A virtual DOM object is a representation of a DOM object. Virtual DOM is actually a copy of the original DOM. Any modification in the web application causes the entire UI to re-render the virtual DOM. Then the difference between the original DOM and this virtual DOM is compared and the changes are made accordingly to the original DOM.
* JSX – Stands for JavaScript XML. It is an HTML/XML JavaScript Extension which is used in React. Makes it easier and simpler to write React components.
* Components – ReactJS supports Components. Components are the building blocks of UI wherein each component has a logic and contributes to the overall UI. These components also promote code reusability and make the overall web application easier to understand.
* High Performance – Features like Virtual DOM, JSX and Components makes it much faster than the rest of the frameworks out there.
* Developing Android/iOS Apps – With React Native you can easily code Android-based or IOS-Based apps with just the knowledge of JavaScript and ReactJS.

**Node.js: JS Runtime Environment**

Node.js provides a JavaScript Environment which allows the user to run their code on the server (outside the browser). Node pack manager i.e., npm allows the user to choose from thousands of free packages (node modules) to download.

Why use Node.JS?

* Open-source JavaScript Runtime Environment
* Single threading – Follows a single-threaded model.
* Data Streaming
* Fast – Built on Google Chrome’s JavaScript Engine, Node.js has a fast code execution.
* Highly Scalable
* Initialize a Node.js application by typing running the below command in the command window. Accept the standard settings.

**Advantages of MERN Stack**

There are a lot of advantages of MERN Stack, some of them are mentioned below -

* For a smooth development of any web application or mobile app, it supports MVC (Model View Controller) architecture; the main purpose of this architecture is to separate the presentation details with the business logic.
* It covers all the web development stages starting from front-end development to backend development with JavaScript.
* It is an open-source framework mainly used to develop web-based or mobile applications and is supported by the community.

1. **SOFTWARE AND HARDWARE REQUIREMENTS**

**3.1 INTRODUCTION**

To be used efficiently, all computer software needs certain hardware components or the other software resources to be present on a computer. These pre-requisites are known as(computer) system requirements and are often used as a guideline as opposed to an absolute rule. Most software defines two sets of system requirements: minimum and recommended. With increasing demand for higher processing power and resources in newer versions of software, system requirements tend to increase over time. Industry analysts suggest that this trend plays a bigger part in driving upgrades to existing computer systems than technological advancements.

**3.2 SYSTEM REQUIREMENTS**

**3.2.1 HARDWARE REQUIREMENTS**

The most common set of requirements defined by any operating system or software application is the physical computer resources, also known as hardware. A hardware requirements list is often accompanied by a hardware compatibility list (HCL), especially in case of operating systems. An HCL lists tested, compatibility and sometimes incompatible hardware devices for a particular operating system or application. The following sub-sections discuss the various aspects of hardware requirements.

HARDWARE REQUIREMENTS FOR PRESENT PROJECT:

PROCESSOR: Intel i3 or higher

RAM: 4 GB

HARD DISK: 80 GB

**3.2.2 SOFTWARE REQUIREMENTS:**

Software Requirements deal with defining software resource requirements and pre-requisites that need to be installed on a computer to provide optimal functioning of an application. These requirements or pre-requisites are generally not included in the software installation package and need to be installed separately before the software is installed.

SOFTWARE REQUIREMENTS FOR PRESENT PROJECT:

OPERATING SYSTEM: Windows 8 or higher / Linux (Ubuntu 20.04 LTS)

FRONT-END: ReactJS, Material-UI (Framework)

SERVER-SIDE SCRIPT: NodeJS, ExpressJS (Framework)

DATABASE: mongo DB

**3.3 MODULES**

This project has the following modules

**3.3.1 BLOG MANAGEMENT MODULE**

* The user can create a blog

**3.3.2 CATEGORY MANAGEMENT MODULE**

**3.3.3 COMMENT MANAGEMENT MODULE**

**3.3.4 IMAGE MANAGEMENT MODULE**